



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,934	08/27/2003	Stuart B. Smith	009608.0113	4108
24283	7590	12/13/2005	EXAMINER	
PATTON BOGGS 1660 LINCOLN ST SUITE 2050 DENVER, CO 80264				MOORE, MARGARET G
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/648,934	SMITH, STUART B.	
	Examiner Margaret G. Moore	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

1) Responsive to communication(s) filed on 03 November 2005.  
 2a) This action is FINAL.                    2b) This action is non-final.  
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

4) Claim(s) 1 to 24 is/are pending in the application.  
 4a) Of the above claim(s) 10 to 17, 20 to 24 is/are withdrawn from consideration.  
 5) Claim(s) \_\_\_\_\_ is/are allowed.  
 6) Claim(s) 1 to 5, <sup>10</sup> 9, 18 and 19 is/are rejected.  
 7) Claim(s) \_\_\_\_\_ is/are objected to.  
 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

9) The specification is objected to by the Examiner.  
 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) All    b) Some \* c) None of:  
 1. Certified copies of the priority documents have been received.  
 2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
	6) <input type="checkbox"/> Other: _____

Art Unit: 1712

1. The amendment filed 11/3/05 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the added definition of x, y and z on page 6.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The specification as originally filed does not support the newly added values of x, y and z, and as such this is considered to be new matter.

3. Applicants state on page 12 of their response that this addition is not new matter as these "are the integers and disclosure relating to the exemplary epoxy functional silicones SILRES® HP 1000 from Wacker Chemicals, supported and described in the specification in the originally filed application". This is not sufficient support for at least two reasons. First, applicants have provided nothing to show what the formula or structure for the two commercially available silicones mentioned in the specification is and as such have not supported their assertion. Second, the Examiner highly doubts that these commercially available silicones will have such wide ranges for the corresponding x, y and z repeating units. Even if applicants do show that the silicones noted in the specification have x, y and z values of, for instance 10, 10 and 10, this would not support the widely claimed ranges. The Examiner was unable to find mention of the two silicones referenced on page 4 of the specification during a prior art search.

4. Claims 4 to 9 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

Art Unit: 1712

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The Examiner is unable to find, and applicants have not cited, any support for these newly added ranges in the specification.

5. Claims 8 and 9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 8, as noted in the previous office action, it is confusing to state that the amine is a combination including polyaspartic ester since this is not an amine.

In addition it is unclear how one can have 70 parts by weight of polyoxypropylenediamine. This would result in the lower limit of 30 parts by weight of polyaspartic ester and would total 100 parts by weight of the polyol prepolymer chain extender. This would exclude any amount of the required epoxy functional silicone.

Considering this point, claim 9 is confusing since the minimum parts by weight when this claim depends upon claim 8 will be 104 parts by weight per 100 parts by weight total polyol prepolymer chain extender.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2, 4, 5, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/10255, as interpreted by Herzog et al.

The teachings in WO 02/10255 were detailed in the previous office action. Applicants note that they have amended the claims to require that the epoxy functional silicone be branched and contain a phenyl group. While not specifically disclosed by the teachings in WO 02/10255, such a silicone is generally suggested and obvious over these teachings.

Art Unit: 1712

Note, for instance, in Herzig et al. on column 2, lines 30 to 37, that the sum of a+b is  $\leq 2$ . Any total less than 2 indicates that at least some branching occurs. Thus the siloxanes in WO 02/10255, while preferably linear, are clearly open to at least some degree of branching and thus renders obvious the requirement that the silicone be branched. In addition note that column 4, line 22, specifically teaches phenyl R groups. In view of the totality of the teachings in WO 02/10255, as interpreted through Herzig et al., one having ordinary skill in the art would have found the selection of a silicone having some branching and a phenyl group to have been obvious and within routine experimentation of the prior art teachings. Thus this amendment does not render the instant claims unobvious over the prior art.

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1, 4 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Raleigh et al.

Raleigh et al. teach branched epoxy functional silicones. See the teachings on column 2, line 10 and on, which show branched siloxanes. Raleigh et al. teach that any of the R or R<sup>1</sup> groups can be phenyl. By specifically discloses phenyl as a useful group patentees anticipate the required branched epoxy functional silicone containing a phenyl group in claim 1. Column 4, line 64, and column 5, line 7, teaches reacting the epoxy silicone with an amine. This anticipates instant claim 1. For claims 4 and 5, see the bottom of column 4 which teaches siloxane amounts that correspond to amine amounts within the breadth of these claims.

10. Claims 2, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Raleigh et al.

With regard to claim 2, the Examiner notes that patentees do not specifically

Art Unit: 1712

these amines. The Examiner notes, however, that claim 2 embraces a very large number of amines, particularly ones that are known to be easily reactive with epoxies. Upon reading the teaching of using an amine reactant, the skilled artisan would have immediately envisioned one that is commonly used and known to be reactive with epoxy groups. As such amines within the breadth of claim 2 would have been obvious.

For claim 18, patentees do not teach the reaction time or temperature. However upon reading that the epoxy siloxanes in Raleigh et al. can be reacted with an amine, the skilled artisan would have been motivated to determine the operable reaction time and temperature. Note that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. As such the claimed reaction conditions would appear to have been obvious to the skilled artisan, attempting to optimize the reaction between the epoxy siloxanes and an amine.

11. The amine reactants in claims 6 to 8 are neither taught nor adequately suggested by the prior art. In addition the (unsupported) siloxane of claim 3, in a reaction with an amine, is not taught or suggested by the prior art. Buekers et al. is cited as being of general interest. This reference teaches an epoxy siloxane within the breadth of claim 3, but fails to teach or suggest the reaction thereof with an amine.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

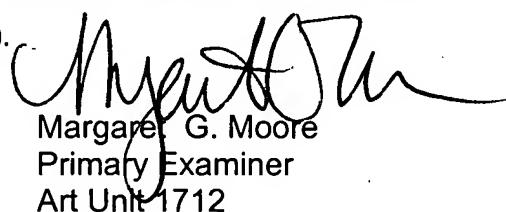
Art Unit: 1712

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Margaret G. Moore whose telephone number is 571-272-1090. The examiner can normally be reached on Monday to Wednesday and Friday, 10am to 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Margaret G. Moore  
Primary Examiner  
Art Unit 1712

mgm  
12/10/05